if said node is a definition-node for a statement of the form PUT (A, E) then determining a value for E, updating said initial value based on the value of E; and adding A to said set of nodes.

- 18. The apparatus of claim 17 wherein said initial value comprises a set of abstract values which form a join-complete partial order.
- 19. Apparatus for doing program analysis comprising:

means for assigning an alias to each equivalence class of possibly overlapping memory accesses as defined by an alias analysis of an intermediate language program; and

means for defining a definition-use relationship between statements in each equivalence class wherein definition-statements which belong to the equivalence class reference the alias associated with that class and wherein use-statements which belong to said equivalence class reference the alias associated with that class.

20. The apparatus of claim 19 further comprising means for constructing a dependence flow graph to represent said definition-use relationship.